FACT SHEET FOR NPDES PERMIT WA-003104-6

FACILITY NAME: PACIFIC FISHERMEN, INC.

TABLE OF CONTENTS

INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System of permits (NPDES permits), which is administered by the Environmental Protection Agency (EPA). The EPA has authorized the state of Washington to administer the NPDES permit program. Chapter 90.48 RCW defines the Department of Ecology's authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the state include procedures for issuing permits (Chapter 173-220 WAC), water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty (30) days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see *Appendix A—Public Involvement* of the fact sheet for more detail on the public notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's response. Comments and the resultant changes to the permit will be summarized in *Appendix E—Response to Comments.*

GENERAL INFORMATION	
Applicant	Pacific Fishermen, Inc.
Facility Name and Address:	Pacific Fishermen, Inc. 5351 - 24th Avenue Northwest Seattle, WA 98107
Type of Facility:	Ship Repair
SIC Code:	3731
Discharge Location:	Waterbody Name: Lake Washington Ship Canal Latitude: 47° 39' 59.23" N Longitude: 122° 23' 23.9" W
Water Body ID Number:	WA 09-1010

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

Pacific Fishermen was originally conceived as a fishermen's cooperative shipyard after WWII on the site of the old Ballard Marine Ways. The yard was subsequently incorporated in 1946 and has been providing shipyard services including the new construction and repair of vessels. Pacific Fishermen purchased a small portion of its current property (i.e., the area in which the screw lift and marine railway No. 2 are currently located) from Rowe Manufacturing Company in 1985. The yard now only repairs vessels but has converted vessels in the past. Vessels repaired are chiefly tugs, fishing vessels, barges, factory ships, yachts, cruise vessels, and government vessels. Hulls are predominately wood or steel. About 70 vessels a year are repaired.

INDUSTRIAL PROCESS

The site includes two marine railways and a screw lift drydock leading to a sidetrack. A map is shown at the end of the fact sheet. The small marine railway or railway 001 consists of a steel platform with a steel bermed tray on wood rails. The carriage is pulled from the water over a concrete slab. The larger marine railway, 002, consists of a steel carriage with a steel bermed tray on the water end which sits on steel rails. The carriage is pulled from the water over a concrete slab with a drain trench at the forward end of the tray. The screwlift dock is a steel platform supported with wood piling and a steel deck with an incorporated berm around the perimeter of the deck.

The basic function of the marine railways are the repair of ships and the cleaning and painting of ships' bottoms, propellers, rudders, and the external parts below the water line. Marine railways are cradles which hold keel blocks positioned on the railway located next to the shoreline and extending into the water. The cradle can be moved so that it is underwater and brought inland far enough so that it is above the water level. The cradle is mobilized by a large chain attached to a pulley run by a large engine. The keel blocks are initially set to a predetermined setting and the cradle is slowly brought inland until the vessel is above the water level (or at least above the current water surface elevation) for servicing.

Operation	Tonnage	Length	Width	Activity
Small Marine Railway	250 tons	110 feet	24 feet	recently 3-5 operations per year
Large Marine Railway	600 tons	150 feet	34 feet	recently 30-35 operations per year
Screw lift drydock	650 tons	150 feet	35 feet	recently 30-35 operations per year
Sidetrack	Fits on drydock			3-4 operations/year

Shops providing services at Pacific Fishermen are a machine shop, steel storage and fabrication shed, welding shop, carpentry shop, pipe shop, paint shed and sandblasting and pressure washing operations. The yard is paved and about three acres.

The source of water flow from the screw lift drydock is ambient source water flowing through the open ends of the deck and over the deck as the dock is lowered. Ballast tanks are not used. The quality of the return flow relative to the source is dependent upon the amount and type of debris that is present on the deck surface prior to submergence.

The yard is using sandblasting, hydroblasting, and high/medium/low pressure washing for hull preparation. This is done either in the sandblasting shed or on the drydock or marine railways. Currently, the outside hulls of ships are stripped by 99 percent pressure wash water and one percent dryblasting. The insides of vessels are dryblasted one hundred percent of the time and are fully contained. No wet blasting is used in the yard. Their sand blasting was reduced from 586.7 tons purchased in 1987 to 135 tons purchased in 1995. Lately, however, it has increased to 140 tons. In 1995, only about one percent of hulls at the yard needed sandblasting and that was for only one quarter of the hull**.** Currently, three percent use sandblasting with one percent needed for the complete hull, one percent needed for half of the hull, and one percent needed for less than one quarter of the hull. Sand blasting is propelling a metallic or nonmetallic grit by compressed air to forcibly impinge on the surface being cleaned. Metallic grit includes utility slag, copper slag, or aluminum. The constituents of abrasive blast vary somewhat, but in general their primary components with approximate percentages are: Silicon dioxide 20-50 %, Iron Oxide 15-40 %, aluminum oxide 0-25 %, and calcium oxide 0-25 %. These four components comprise from 80 to 99% of the abrasive grit composition. Trace elements in these abrasive grits include: potassium oxide, sodium oxide, copper, titanium, and sulfur. Nonmetallic includes recycled glass of various sizes and sodium bicarbonate. Dryblasting is only used to prepare hulls for paints that require a new profile for paint adherence such as polyethylene.

The debris from the sandblast operations is picked up by hand shovels or other method for transfer to hoppers or skip boxes. Pacific Fishermen keeps the spent sandblast grit under cover. The sandblasting shed is a metal building with rigid sides and large swinging doors. Ninety-eight percent of the sandblasting grit is used in the sandblast shed. A disposal firm, Industrial Services, picks up spent sandblast grit for reuse as cement calciner feedstock.

Hydroblasting is conducted by 3000 to 5000 pounds per square-inch pressure wash water as PFI now operates one 5000-pound and two 3000-pound pressure washers. Hydroblast water from the two marine railways and the sidetrack are collected on a concrete pad. The wastewater is routed through an underground settling vault and pretreated through an inclined plate clarifier and then discharged to the sanitary sewer. No acid solution is used in the hydroblast process.

Paint is stored in a bermed waste storage shed. Paints are mixed in front of the paint shed on a concrete slab in drip trays and at project areas throughout the facility in drip trays sitting on visquine sheets. Engine repair services are not provided.

Bilge water, ballast water, hydraulic fluid, and oily wastes are collected for disposal on shore by a contract disposal firm. Ballast and bilge water are disposed of by the contractor at their facility.

Ship sanitary wastes are piped to the sanitary sewer. Portable toilets are used for certain ship repair projects or black water is pumped from vessels holding tanks by the subcontractor.

Cooling water is not supplied to moored or drydocked vessels. A portable steamer is used for steaming and bending wood planks. There is one parts washing tank which is a self-contained recycling unit using 140° F solvent. The waste sludge is placed with waste oils and disposed of with the waste oils. Hydraulic fluids are stored in closed drums in the waste storage shed and used oils are picked up by Certified Cleaning, Inc. Antifreeze and coolants are also stored in sealed drums in the waste storage shed and are picked up by Northwest Antifreeze for recycling.

DISCHARGE OUTFALL

Catch basins nine and ten drain the main section of the yard where the crane lifts materials from and onto the dock. These are the two remaining stormwater outfalls. They are shown in Figure 1. All discharges are to Lake Washington Ship Canal.

PERMIT STATUS

The previous permit for this facility was issued on May 15, 1997, and modified on September 11, 1998. The previous permit placed effluent limitations on oil and grease stormwater and drydock floodwater.

An application for permit renewal was submitted to the Department on November 6, 2001, and accepted by the Department on May 2, 2002. The permit was extended on May 7, 2002.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received inspections on June 20, 2001, and March 28, 2002.

A Notice of Violation No. DE 98WQ-N180 was issued on May 29, 1998 for several violations:

> failing to train independent contractors and customers in best management practices, painting without tarps, allowing grinding of ships while docked at pier side such that material is discharged to the receiving water, and storing chemicals without secondary containment on docks adjacent to the Lake Washington Ship Canal.

A Notice of Penalty No. DE 01WQNR-3157 was issued to Pacific Fishermen on August 21, 2001, for:

> using a collection system not approved by the Department of Ecology, illegal discharge of a pollutant (paint spray) to waters of the state, and violating Condition S.11B in the permit, *Control and Cleanup of Paint Dust and Abrasive Blasting Debris*.

Pacific Fishermen is experiencing ongoing exceedances for the oil and grease effluent limit for stormwater drydocks 001 and 002. Pacific Fishermen contends this is due to ambient water quality in the ship canal. This permit includes language permitting the sampling of ambient water before submergence.

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge is characterized by debris particles such as spent grit, paint chips, flakes or rust particles, and fresh paint dripped or spilled onto the debris during application to the hull, machinery, or equipment. Ship repair requires cleaning and degreasing of pipe and small metal items. Cans, paper, bottles, rags, welding rods, scrap metal, and pieces of wood are examples of trash found on a marine railway floor. Pacific Fishermen contends much of this debris floats into the marine railways from other parts of the canal.

A November 2000 *Stormwater AKART and Effluent Mixing Study Report* for Pacific Fishermen characterized stormwater discharged through Outfalls 9 and 10 between October 1997 and April 1998.

The proposed wastewater discharge is characterized for the following regulated parameters:

Table 1: Wastewater Characterization for Stormwater-009 and 010

Parameter	No. of Samples	Min. Conc. (mg/L)	Outfall 009 Max. Conc. (mg/L)	Outfall 009 Min. Conc. (mg/L)	Outfall 010 Max. Conc. (mg/L)
Copper (T.R.)	8	0.081	1.12	0.082	4.74
Lead (T.R.)	8	0.02	0.15	0.008	0.84
Zinc (T.R.)	8	0.36	2.24	1.17	14.1
Arsenic (T.R.)	3	0.0069	0.05	0.0006	0.17
Oil and Grease	7	1	8.6	1	6.6
TSS	7	3.1	93	3.6	130
Turbidity	7	1.8	7 (NTU)	3.5	44 (NTU)

The values for arsenic, copper, lead, and zinc are not in compliance with the water quality surface water standards.

Hydroblast Wastewater

Measurements at other shipyards and in a 1993 King County Wastewater Treatment Plant study found hydroblast wastewater well above acute and chronic water quality criteria.

Chemical Contaminants in Salmon Bay Sediments - Results of Phase II Sampling, November 1996, reported:

> "Of the 29 stations sampled, 21 were located adjacent to marinas, boat repair facilities, marine terminals (including Fishermen's Terminal), shipyards, or vessel-related facilities. Two of the six stations (8A and 4B) with TBT levels greater than 1,000 µg/Kg were not adjacent to these facilities, while seven of eight sites with TBT less than 100 µg/Kg were adjacent to areas with marinas, etc. Proximity to these facilities alone did not appear to dictate concentrations of TBT. Instead, high TBT concentrations in sediments can probably be traced to individual facilities which did a poor job of containing paints, scrapings, and sandblast grit on-site. For instance, the station with the highest TBT concentration (Station 1B) is located just offshore of Alaska Pacific Fisheries and Pacific Fishermen, Inc., both with a history of poor 'housekeeping'."

SEPA COMPLIANCE

This facility is required to comply with all State Environmental Policy Act regulations and guidelines. A signed SEPA document will be required before implementation of the construction of stormwater conveyance to the King County Waste Water Treatment Plant.

PROPOSED PERMIT LIMITATIONS

Federal and state regulations require that effluent limitations set forth in an NPDES permit must be either technology- or water quality-based. Technology-based limitations are based upon the treatment methods available to treat specific pollutants. Technology-based limitations are set by regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC), or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The more stringent of these two limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

Effluent discharge conditions may change from the conditions reported in the permit application. If significant changes occur in any constituent, as described in 40 CFR 122.42(a), the Permittee is required to notify the Department of Ecology. The Permittee may be in violation of the permit until the permit is modified to reflect additional discharge of pollutants.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

Collection, treatment, and recycle or discharge to the sewerage system of hydroblast wastewater is available technology and is used at most shipyards. Most boatyards collect and recycle hull wash water. Hydroblast wastewater collection, treatment and recycle or discharge to the King County Sanitary Sewerage System is determined to be the technology-based limitation cited in Chapter 173-220 WAC as all known, available, and reasonable methods of treatment (AKART) . All process water discharges directly to the Lake Washington Ship Canal were prohibited after August 15, 1997.

Chapter 173-201A-160(4)(c) requires any discharger to evaluate the possibility of achieving water quality criteria via nonconstruction changes (e.g., facility operation, pollution prevention). Pacific Fishermen has established best management practices and has developed a Stormwater Pollution Prevention Plan. In addition, in the report *Stormwater AKART and Effluent Mixing Study Report*, a mixing zone was calculated with the current effluent data and it was established that surface water quality standards cannot be met without a construction or engineering change.

Pacific Fishermen will be required to continue to follow and improve their best management practices (BMPs). The marine railways and screw lift drydock will be cleaned to remove spent blasting abrasives and other solid wastes including paint chips, scrap metal, wood, plastic, paper and welding rods. Prior to undocking, the marine railway shall be returned to a clean condition using dry cleanup methods (i.e., brooms, vacuums...etc.). The minimum amount of water

flushing necessary to return the marine way and screw lift drydock to a clean condition may be used as a final cleanup step as long as the wastewater is not directly discharged to the Lake Washington Ship Canal. No change in turbidity between Screw Lift Drydock flood water and the ambient water will be allowed. Also no visible sheen will be allowed. Photographs will be taken and maintained in a logbook to demonstrate the condition of the marine railways and the Screw Lift Drydock floor prior to launching a vessel.

Waters of the state are especially vulnerable from painting and hull preparation directly over water. Over water work with tarping does not have the benefit of collection and discharge to the sanitary sewer or treatment to the surface water criteria as is proposed at Pacific Fishermen for upland or drydock repair. Attaching tarps to floats is more difficult than from piers and the instability, exposure, and size of floats increases the risk of spills. BMP's to minimize discharges to the Lake Washington Ship Canal are required.

To ensure minimizing oil and grease discharges, the Department will establish an oil and grease effluent limitation of 5 mg/L. This level of control is AKART. This level of control has been achieved for drydock flood waters at Dakota Creek, Duwamish, Foss, and Marco shipyards. Based on this achieved level of control and the best professional judgment, the Department determines an oil and grease effluent limitation of 5 mg/L is AKART for the flood water discharges from Pacific Fishermen's Screw Lift Drydock and the receiving water at the downstream end of the railways.

Hauling off-site or discharging to the sanitary sewer wastewater from cooking, dish washing and showers is determined to be AKART.

Discharges of wastewater from cooking, dish washing, showers, hydrotesting of piping system and portable steaming to the King County Sanitary Sewerage System or hauling off-site is determined to be AKART.

Recycling of solvents on-site or off-site disposal is AKART. Zero discharge from maintenance shops is determined to be AKART.

Discharge of bilge and ballast water to the King County Sanitary Sewerage System subsequent to characterization and approval or hauling off-site for treatment is determined to be AKART.

Performance-based interim effluent limitations for Outfalls 090 and 010 are derived from formulas in Appendix E of the EPA Technical Support Document, March 1991, calculated-based on the observed data from January 1998 to May 1999.

The *Urban Stormwater BMP Performance Manual* guidance manual, page 68, recommends turbidity as a surrogate for TSS. The Department concurs.

Final stormwater technology-based effluent limitations for copper, lead, zinc, turbidity, oil and grease, and total suspended solids have been determined by the Department following an analysis of all known, available, and reasonable methods of treatment (AKART) by Pacific Fishermen. The limit for Arsenic will be set at 50 µg/L as this was achieved for all samples taken for the last permit cycle except for one outlier in 1997. Since Pacific Fishermen has shown that this is achievable for the last four years it is considered AKART.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established surface water quality standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

Based on review of the *Stormwater AKART and Effluent Mixing Study Report* submitted by Pacific Fishermen, December 2000, a mixing zone will not be allowed at this site. Dilution factors for metals ranged from 6 to 3000 for acute criteria and from 1500 to 10,000 for chronic. Foster Wheeler Environmental (2000) stated, "Based on the existing stormwater and receiving water data, the dilution factors that are required to achieve ambient water quality compliance are significantly greater than can be achieved in the Lake Washington Ship Canal." There is not adequate mixing in the ship canal to achieve water quality criteria for Outfalls 9 and 10.

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the Washington State's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water while remaining protective of aquatic life. Numerical criteria set forth in the water quality standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA, 1992). These criteria are designed to protect humans from cancer and other diseases and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the state of Washington.

ANTIDEGRADATION

The Washington State's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall be protected. More information on the state Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the water body's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

MIXING ZONES

The water quality standards allow the Department of Ecology to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving all known, available, and reasonable methods of prevention, control, and treatment (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100.

The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria.

A mixing zone is not authorized under this permit. Following construction of the marine railways collection and treatment system all hydroblast and stormwater on the collection system when in use will be recycled or discharged to the King County wastewater treatment plant. Flood water on the screwlift collection and containment systems is indistinguishable from the ambient surface water except for easily discernible oil and grease.

DESCRIPTION OF THE RECEIVING WATER

The facility discharges to the Lake Washington Ship Canal that is designated as a Lake Class receiving water in the vicinity of the outfall. Other nearby point source outfalls include Tri-Star Marine, MARCO, and Fishing Vessels Owners Marine Ways. Significant nearby nonpoint sources of pollutants include marinas, urban stormwater runoff, and the combined sewerage overflow located beneath the 24th Avenue landing dock. Characteristic uses include the following:

> water supply (domestic, industrial, agricultural); stock watering; fish migration; fish, spawning, and harvesting; wildlife habitat; primary contact recreation; sport fishing; boating and aesthetic enjoyment; commerce and navigation.

Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

SURFACE WATER QUALITY CRITERIA

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA, 1992). Criteria for this discharge are summarized below:

Turbidity	less than 5 NTU above background
Toxics	No toxics in toxic amounts (see Appendix C for numeric criteria for toxics of concern for this discharge)

Federal criteria for oil and grease states that waters are to remain essentially free of oil and grease of petroleum origin.

The Lake Washington Ship Canal is on the Clean Water Act 303(d) list for bioassay and sediments.

CONSIDERATION OF SURFACE WATER QUALITY-BASED LIMITS FOR NUMERIC CRITERIA

Pollutant concentrations in the proposed discharge exceed water quality criteria with technology-based controls which the Department has determined to be AKART. A mixing zone is not authorized.

Pollutants in an effluent may affect the aquatic environment near the point of discharge (near-field) or at a considerable distance from the point of discharge (far-field). Toxic pollutants, for example, are near-field pollutants—their adverse effects diminish rapidly with mixing in the receiving water. Conversely, a pollutant such as BOD is a far-field pollutant whose adverse effect occurs away from the discharge even after dilution has occurred. Thus, the method of calculating surface water quality-based effluent limits varies with the point at which the pollutant has its maximum effect.

The derivation of surface water quality-based limits also takes into account the variability of the pollutant concentrations in both the effluent and the receiving water.

The permit contains a compliance schedule for construction of the conveyance system to transfer effluent to the King County wastewater treatment plant. Chapter 173-201A requires compliance with all water quality-based effluent limits in the shortest practicable time. The Department is allowing until July 2, 2005, for completion of the new system.

Oil and Grease—the federal criteria for oil and grease in the Quality Criteria for water, 1986, is that surface waters shall be virtually free from floating oils of petroleum. The Department determines 5 mg/L oil and grease limit, no visible oil sheen, discoloration or turbidity meets this requirement. Monitoring will be by grab sample, visual observation, and logging and noncompliance notification.

Turbidity—Due to the potential fluctuations in turbidity of the receiving water and the effluent, turbidity monitoring is required to assess compliance with the water quality criteria for turbidity. The criteria for turbidity allows no more than a 5 NTU increase over background turbidity.

Toxic Pollutants—Federal regulations (40 CFR 122.44) require NPDES permits to contain effluent limits for toxic chemicals in an effluent whenever there is a reasonable potential for those chemicals to exceed the surface water quality criteria. This process occurs concurrently with the derivation of technology-based effluent limits. Facilities with technology-based effluent limits defined in regulation are not exempted from meeting the water quality standards for surface waters or from having surface water quality-based effluent limits.

The following toxics were determined to be present in the discharge: heavy metals. The determination of the reasonable potential for copper, lead, zinc, and arsenic to exceed the water quality criteria was evaluated.

Effluent limits were derived for copper, lead, zinc and arsenic, which were determined to have a reasonable potential to cause a violation of the water quality standards. Effluent limits were calculated using methods from EPA, 1991, as shown in Appendix D.

The resultant interim effluent limits are as follows:

INTERIM STORMWATER EFFLUENT LIMITATIONS		
Stormwater Outfalls No. 9 and 10		
Outfalls	**009**	**010**
Parameter	**Maximum Daily[a]**	
Oil and Grease	5 mg/L[1]	5 mg/L[1]
Oil and Grease	No visible sheen	No visible sheen
Turbidity	5 NTU above background	5 NTU above background
Arsenic TR[2]	50 µg/L	50 µg/L
Copper TR	622 µg/L	808 µg/L
Lead TR	116 µg/L	390 µg/L
Zinc TR	1974 µg/L	4964 µg/L
[a]The maximum daily effluent limitation is defined as the highest allowable daily discharge. [2]TR-Total Recoverable		

The proposed permit contains a compliance schedule for meeting the water quality-based limits for copper, lead, zinc, and arsenic. Prior to authorizing this compliance schedule, the Department required the Permittee to evaluate the possibility of complying with the limitations by changes other than construction.

The proposed permit contains interim limits for copper, lead, zinc, and arsenic as required by Chapter 173-201A WAC. The limits are based on existing demonstrated performance. Water quality criteria for metals in Chapter 173-201A WAC are based on the dissolved fraction of the metal. The detection limit for arsenic will be changed from 50 µg/L to 1 µg/l to better characterize the wastewater.

The Permittee may provide data clearly demonstrating the seasonal partitioning of the dissolved metal in the ambient water in relation to an effluent discharge. Metals criteria may be adjusted on a site-specific basis when data is available clearly demonstrating the seasonal partitioning in the ambient water in relation to an effluent discharge.

Metals criteria may also be adjusted using the water effects ratio approach established by USEPA, as generally guided by the procedures in USEPA Water Quality Standards Handbook, December 1983, as supplemented or replaced.

FINAL EFFLUENT LIMITS					
Outfalls	**Copper µg/L**	**Lead µg/L**	**Zinc µg/L**	**Arsenic µg/L**	**Turbidity NTU Over Background**
090 and 010	6.2	19.6	45.9	50.0	5 NTU over background

HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

According to the MSDS sheets included in the application, Pacific Fishermen uses at least two products which contain ethyl benzene. This contaminant is listed as one of the 91 human health criteria necessary to evaluate human health effects.

The Department has determined that the effluent is likely to have chemicals of concern for human health. The discharger's high priority status is based on: (1) the discharger's status as a major discharger, (2) knowledge of data or process information indicating regulated chemicals occur in the discharge, or (3) the applicant discharges to a water body that is 303(d) listed for a regulated chemical, and that chemical is known or expected to be in the effluent.

A determination of the discharge's potential to cause an exceedance of the water quality standards was not conducted due to the facilities agreement to construct a collection and conveyance system to send all stormwater to the sanitary sewer. If Pacific Fishermen, Inc. fails to meet the dates on the compliance schedule for this construction project, monitoring the effluent for ethyl benzene will be required.

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173204-400).

The Department has determined that this discharge has the potential to cause a violation of the sediment quality standards due to heavy metals.

Pacific Fishermen was mentioned in the report done by the Environmental Investigations and Laboratory Service Program, "*Chemical Contaminants in Salmon Bay Sediments - Results of Phase II Sampling,"* November 1996. The report stated:

> "Of the 29 stations sampled, 21 were located adjacent to marinas, boat repair facilities, marine terminals (including Fishermen's Terminal), shipyards, or vessel-related facilities. Two of the six stations (8A and 4B) with TBT levels greater than 1,000 µg/Kg were not adjacent to these facilities, while seven of eight sites with TBT less than 100 µg/Kg were adjacent to areas with marinas, etc. Proximity to these facilities alone did

> not appear to dictate concentrations of TBT. Instead, high TBT concentrations in sediments can probably be traced to individual facilities which did a poor job of containing paints, scrapings, and sandblast grit on-site. For instance, the station with the highest TBT concentration (Station 1B) is located just offshore of Alaska Pacific Fisheries and Pacific Fishermen, Inc., both with a history of poor 'housekeeping'."

The last NPDES permit issued on May 15, 1997, required Pacific Fishermen to change their processes and since August 14, 1997, Pacific Fishermen has been discharging their process water to the King County Wastewater Treatment Plant. Currently, effluent discharging from outfalls 009 and 010 is only due to stormwater. This, in itself, reduced the contaminants in the effluent significantly. In addition, this permit requires Pacific Fishermen to meet the state surface water quality standards within two years from issuance of the permit. This should minimize impacts to the sediment adjacent to Pacific Fishermen.

Following the review of the Sediment Sampling and Analysis Plan, however, the Department may issue an Administrative Order requiring Pacific Fishermen to collect and analyze sediment data.[1]

GROUND WATER QUALITY LIMITATIONS

The Department has promulgated ground water quality standards (Chapter 173-200 WAC) to protect beneficial uses of ground water. Permits issued by the Department shall be conditioned in such a manner so as not to allow violations of those standards (WAC 173-200-100).

This Permittee has no discharge to ground and therefore no limitations are required based on potential effects to ground water.

COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED MAY 15, 1997.

Station and Parameter	Existing Limits	Proposed Final Limits
Pressure Wash Wastewater	No Direct Discharge	No Direct Discharge
Sewerage and Grey Water	No Direct Discharge	No Direct Discharge
Stormwater for Outfalls 009 and 010		
Oil and Grease	5 mg/L	5 mg/L Daily Maximum
Turbidity	None	5 NTU above background
Total Recoverable Arsenic	None	50 µg/L Compliance with criteria by effective date of permit
Total Recoverable Copper	None	6.2 µg/L Compliance with criteria by November 2, 2004
Total Recoverable Lead	None	19.6 µg/L Compliance with criteria by November 2, 2004
Total Recoverable Zinc	None	45.9 µg/L Compliance with criteria by November 2, 2004
Marine Railways and Drydock		
Oil and Grease	5 mg/L	5 mg/L
Oil and Grease	None	No visible sheen

[1] Ecology's determination to issue an Order to collect and analyze sediment data is an appealable action under RCW 43.21B.310.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved.

The monitoring schedule is detailed in the proposed permit under Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Stormwater monitoring for metals, turbidity, and oil and grease is required to further characterize the effluent. These pollutants could have a significant impact on the quality of the surface water.

This permit requires the Permittee to monitor the stormwater outfalls on a twice per month schedule consistent with MARCO, Hansen, Duwamish Shipyard, Fishing Vessel Owners Marine Ways, Puglia Engineering, and TODD Pacific.

A visual observation and log with photographs shall be maintained of each lowering of the cradles for marine railways and screwlift drydock.

LAB ACCREDITATION

With the exception of certain parameters, the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories.*

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 173-220-210).

NONROUTINE AND UNANTICIPATED DISCHARGES

Occasionally, this facility may generate wastewater which is not characterized in their permit application because it is not a routine discharge and was not anticipated at the time of application. These typically are waters used to pressure test storage tanks or fire water systems or leaks from drinking water systems. These are typically clean waste waters but may be contaminated with pollutants. The permit contains an authorization for nonroutine and unanticipated discharges. The permit requires a characterization of these waste waters for pollutants and examination of the opportunities for reuse. Depending on the nature and extent of pollutants in this wastewater and opportunities for reuse, Ecology may authorize a direct discharge via the process wastewater outfall or through a stormwater outfall for clean water, require the wastewater to be placed through the facilities wastewater treatment process, or require the water to be reused.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit requires the Permittee to update this plan and submit it to the Department.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under the authority of RCW 90.48.080, that the Permittee update the Solid Waste Plan designed to prevent solid waste from causing pollution of the waters of the state. The plan must be submitted to the local permitting agency for approval, if necessary, and to the Department.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary, to meet water quality standards for surface waters, sediment quality standards, or water quality standards for ground waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the state of Washington. The Department proposes that this proposed permit be issued for five (5) years.

REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

1983. Water Quality Standards Handbook. USEPA Office of Water, Washington, D.C.

Tsivoglou, E.C., and J.R. Wallace.

1972. Characterization of Stream Reaeration Capacity. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology.

1994. Permit Writer's Manual. Publication Number 92-109

Washington State Department of Ecology.

Laws and Regulations (http://www.ecy.wa.gov/laws-rules/index.html)

Permit and Wastewater Related Information (http://www.ecy.wa.gov/programs/wq/wastewater/index.html)

Wright, R.M., and A.J. McDonnell.

1979. In-stream Deoxygenation Rate Prediction. Journal Environmental Engineering Division, ASCE. 105(EE2). (Cited in EPA 1985 op.cit.)

APPENDIX A—PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page one of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public Notice of Application (PNOA) was published on September 4, 2001, and September 11, 2001, in the *Seattle Times* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department published a Public Notice of Draft (PNOD) on April 22, 2003 in the *Seattle Times* and the *Seattle Post-Intelligence* to inform the public that a draft permit and fact sheet were available for review. Interested persons were invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents were available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments were mailed to:

Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 – 160th Avenue SE
Bellevue, WA 98008-5452

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the thirty (30)-day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least thirty (30) days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within thirty (30) days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, 425-649-7201 or by writing to the address listed above.

This permit and fact sheet were written by Donna Ortiz de Anaya.

APPENDIX B—GLOSSARY

Acute Toxicity—The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

AKART—An acronym for "all known, available, and reasonable methods of treatment."

Ambient Water Quality—The existing environmental condition of the water in a receiving water body.

Ammonia—Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation—The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)—Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the state. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD_5—Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD_5 is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass—The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine—Chlorine is used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic Toxicity—The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA)—The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance Inspection - Without Sampling—A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling—A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample—A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots).

Construction Activity—Clearing, grading, excavation, and any other activity which disturbs the surface of the land. Such activities may include road building; construction of residential houses, office buildings, or industrial buildings; and demolition activity.

Continuous Monitoring—Uninterrupted, unless otherwise noted in the permit.

Critical Condition—The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Dilution Factor—A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Engineering Report—A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal Coliform Bacteria—Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab Sample—A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater—Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business; from the development of any natural resource; or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Major Facility—A facility discharging to surface water with an EPA rating score of >80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum Daily Discharge Limitation—The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)—The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Minor Facility—A facility discharging to surface water with an EPA rating score of <80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing Zone—An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

National Pollutant Discharge Elimination System (NPDES)—The NPDES (Section 402 of the Clean Water Act) is the federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the state of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/state permits issued under both state and federal laws.

pH—The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)—A calculated value five times the MDL (method detection level).

Responsible Corporate Officer—A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Technology-based Effluent Limit—A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS)—Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

State Waters—Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater—That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Upset—An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit—A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C—FIGURES/SITE PLAN

APPENDIX D—TECHNICAL CALCULATIONS

Outfall 009

As in stormwater 50 µg/L
Cu in stormwater $y = 0.176x - 14.495$, $R^2 = 0.9584$
Pb in stormwater $y = -0.004x^2 + 1.5177x - 22.064$, $R^2 = 0.9679$
Zn in stormwater $y = 0.0513x - 6.2854$, $R^2 = 0.9697$

Outfall 010

As in stormwater 50 µg/L
Cu in stormwater $y = 43.904\text{Ln}(x) - 198.69$, $R^2 = 0.9832$
Pb in stormwater $y = 0.2439x$, $R^2 = 1$
Zn in stormwater $y = 7E-07x^2 + 0.0172x - 7.6374$, $R^2 = 0.9616$

OUTFALLS			
009		**010**	
As	50 µg/L	As	50 µg/L
Cu	622 µg/L	Cu	808 µg/L
Pb	116 µg/L	Pb	390 µg/L
Zn	1974 µg/L	Zn	4964 µg/L

Outfall 009

Cu $y = 0.176x - 14.495$
$y = 95$
$95 = 0.176x - 14.495$
$622 = x$

Pb $y = {}^{-}0.0044x^2 + 1.5177x - 22.064$
$95 + 22.064 = {}^{-}0.0044x^2 + 1.5177x$
$0 = {}^{-}0.0044x^2 + 1.5177x - 117.064$
$x = 116.44$

Zn $y = 0.0513x - 6.2854$
$95 + 6.2854 = 0.0513x$
$1979.37 = x$

Outfall 010

Cu $y = 43.904\text{Ln}(x) - 198.69$
$293.69 = 43.904\text{Ln}(x)$
$x = 803.8$

Pb $y = 0.2439x$
$95 = 0.2439x$
$x = 389.504$

Zn $y = 7E^{-07}x^2 + 0.0172x = 7.6374$
$0 = 7E^{-07}x^2 + 0.0172x - 102.637$
$x = 4964.30$

APPENDIX E—RESPONSE TO COMMENTS

Responsiveness Summary for Pacific Fishermen, Inc.

Comments from Pacific Fishermen

1. Pacific Fishermen questions the Department's authority to regulate graywater and treated effluent from marine sanitation devices. Please define graywater.

The Department has been prohibiting graywater and sewage disposal in our shipyard permits since 1997. That includes Pacific Fishermen's last permit issued May 15, 1997. That is All Known Available and Reasonable Technology. Since no discharge is more protective of the environment than even the advanced marine sanitation devices, no discharge will remain in the permit.

Graywater includes laundry, galley water, shower water, and any soapy water. Washing the decks with soap and discharging to the Lake Washington Ship Canal would be a violation of the permit.

The Permittee is always responsible for violations at the permitted site. The Permittee at Pacific Fishermen is not the vessels moored at pier side but is Pacific Fishermen. Hydraulic hose leaks and failures, sewage and graywater discharges are all violations of Pacific Fishermen's NPDES permit since they are occurring at Pacific Fishermen's property.

In answer to your other question regarding graywater:

Clean water discharges or rainwater from the decks of ships is not graywater.

The Department has always defined soap as polluting matter under RCW 90.48.080. It is prohibited under the NPDES permit for this reason. This includes soap from deck washing. Specifically, RCW 90.48.080 states that it is unlawful for any person to throw, drain, run, or otherwise discharge into any of the waters of this state, or to cause, permit or suffer to thrown, run, drained, allowed to seep or otherwise discharged into the waters any organic or inorganic matter that shall cause or tend to cause pollution of such waters according to the determination of the Department, as provided in this chapter.

In support of the Department of Ecology's finding that the prohibition on discharge of graywater while moored is AKART, the Port of Seattle Best Management Practices for Cruise Ship Vessels at Port of Seattle Pier 66 and Terminal 30 include:

- Discharge of untreated or treated sewage from vessels moored at Port facilities is prohibited.
- Discharge of graywater from vessels moored at Port facilities is prohibited. BMP's for graywater included.

- Discharge of bilge water from vessels moored at Port facilities is prohibited. BMP's for bilge water included.
- Pre-arrival ballast exchange required prior to discharge in WA waters. Open sea exchange in depth of 2,000 meters or more at least 50 nautical miles offshore and if from outside the United States, 200 nautical miles from offshore. BMP's for ballast water included.

2. Condition S1.B, Interim and Final Effluent Limitations.
The new draft permit adds that there is to be no visible sheen from oil and grease. This effluent limit will be impossible for Pacific Fishermen to meet in light of the sheens that are ever present in the ambient water surrounding its facility. Pacific Fishermen is located next door to Ballard Oil Company, alongside a 24-inch municipal stormwater outfall, and in an area of Salmon Bay that is influenced by urban stormwater runoff and industrial activities. It is unfair to place a visible sheen effluent limitation on Pacific Fishermen in addition to a numerical effluent limitation for both stormwater and the flood water in the marine railways and screw lift drydock. Pacific Fishermen requests that the interim and final "visible sheen" effluent limitations be removed from its permit.

Similarly, Pacific Fishermen should not be required to meet turbidity effluent limitations for the same reason as stated for visible sheens. Pacific Fishermen requests that the interim and final effluent limitations for turbidity be removed from its permit.

We are also very concerned about the requirements for background sampling for turbidity. As we explained when we met, it is difficult, if not impossible, for Pacific Fishermen to take background samples since our facility is located in an eddy. Pacific Fishermen needs more guidance on how it can collect representative background samples, given its location and sampling constraints. Absent such guidance, Pacific Fishermen requests that the monitoring requirements and effluent limitations for turbidity be removed from the permit.

Finally, as we have advised you on several occasions, arsenic is not a constituent of concern associated with Pacific Fishermen's operations or its stormwater discharges. Pacific Fishermen requests that the final and interim effluent limitations for arsenic in Conditions S1 (as well as the monitoring requirements for arsenic in Condition S2) be deleted.

This permit is consistent with requirements in other permits such as MARCO and Lake Union Drydock which require monitoring and effluent limits for oil and grease, turbidity and visible sheens. As was described during the meeting, the point of allowing background samples is to determine if there was a sheen, turbid water or oil and grease exceeding the limit in the water before measuring the effects from Pacific Fishermen's effluent. If, in fact, the background samples taken show exceedence of the limits, then Pacific Fishermen would not be held liable for similar numerical exceedences. Technical assistance will be available when requested to assist the facility in monitoring techniques. Similarly, visible sheen in the

receiving water can be recorded in the log of observations. If the cause of the sheen is background sheen then the Department will not hold Pacific Fishermen liable.

As Arsenic was tested for under the Stormwater AKART and Effluent Mixing Study Report between October 1997 and April 1998 and found to have a maximum concentration of 170 µg/L which is just shy of the 190 µg/L chronic surface water quality criteria for fresh water, the Department believes that there is a potential to pollute. Pacific Fishermen has less than 2 years of data monitoring for arsenic and due to repairing ships with preservatives containing arsenic treated wood, the Department feels more monitoring is required to characterize stormwater discharges for arsenic and calculate a reasonable potential to pollute the Lake Washington Ship Canal with arsenic. Further, when Pacific Fishermen meets the compliance schedule for conveyance of stormwater to the sanitary sewer, no further monitoring for arsenic will be required by the Department.

3. **Condition S2, Monitoring Requirements.**
Condition S2B, which requires us to take photographs of each screw lift drydock and marine railway launch to show that there is not visible sheen, is unduly burdensome. Pacific Fishermen requests that this provision be deleted from its permit. We also believe that requiring that photographs be taken every time a float is used is unduly burdensome.

This is also consistent with other shipyard permits and has been a valuable tool to ensure compliance with best management practices before submergence of drydocks/marine railways. The Department has moved away from monitoring discharges from dry dock flood water except for oil and grease to reduce the burden on shipyards. Photographs are the least burdensome available method for Pacific Fishermen to demonstrate compliance with the drydock BMPs. Photos may be taken digitally or with film and are normally reviewed during inspection of the facility.

4. **Condition S3.A, Reporting and Recordkeeping Requirements.**
The last subparagraph in Condition S3.A is already contained in General Condition G24. We believe that these conditions are duplicative of the requirements in Condition S3.E. Explain the rationale for requiring Pacific Fishermen to report its compliance and progress within 14 days of each schedule date.

The Department agrees this requirement is duplicated both under the Reporting and Recordkeeping Requirement section and in the General Condition section. The rationale for the noncompliance notification within 14 days of the violation is to document the violation and maintain an awareness, both in upper management at the facility and with the facility Ecology manager to keep the Permittee on track in meeting future compliance dates. Since Pacific Fishermen is currently not meeting Surface Water Quality Standards with its stormwater, there is some urgency in moving the facility through the construction of the conveyance system to the sanitary sewer and ultimately, no longer discharging polluted stormwater to state waters.

5. Condition S5, Engineering Report for Stormwater Treatment Systems.
Pacific Fishermen appreciates Ecology's willingness to work with Pacific Fishermen to finalize its stormwater treatment system. The date in the first sentence of condition S5 should be changed to March 1, 2004 in order to match the Summary of Permit Report Submittals on page 4 and the compliance schedule on page 8.

The Permit will be changed to correct the date.

Pacific Fishermen's available land capacity for implementing a stormwater treatment system is significantly smaller than that of MARCO or Nichols Brothers. While Pacific Fishermen may elect to design a system with greater capacity, we request that you modify Condition S5 so as not to impose a design criterion for conveying or routing stormwater that is greater than the average flow during the peak hour of the 5-year, 24-hour storm event (as required in MARCO's permit.)

The AKART stormwater treatment design for shipyards as noted by NPDES permits for Foss, Puglia Engineering, Duwamish, Hansen Boat Company, Everett Boatyard and the draft for Dakota Creek is the 10-year, 24-hour storm event. MARCO was an exception because their Engineering Report had been approved some years prior to the renewal of their last permit.

Pacific Fishermen also requests that the Department modify the bypass language contained in Condition S4B to state that "the bypass of waste streams from any portion of the treatment system, other than overflows caused by a greater than the average flow during the peak hour of the 5-year, 24-hour storm event, is prohibited unless one of the following….If the Department decides to retain the 10-year, 24-hour storm event as the storm event criterion, then we request that the bypass language contained in Condition S4B state that "the bypass of waste streams from any portion of the treatment system, other than overflows caused by a greater than the average flow during the peak hour of the 10-year, 24-hour storm event, is prohibited unless one of the following …

The Department includes this bypass language under proper operation of treatment facilities to discourage bypasses, which are the intentional diversion of waste streams from any portion of a treatment facility. Any and all bypasses must follow the procedures listed in Condition S4B, no exceptions will be granted.

Pacific Fishermen points out that with respect to the compliance schedule dates on page 8, we do not have any control over the issuance of approvals or permits by the Department or any other permitting agency. Therefore, we request that there be no exact date for final permitting and that the Department instead require that Pacific Fishermen submit its permit applications within (4) months of receipt of Department's approval of the Engineering Report.

Similarly, Pacific Fishermen should not be forced to procure major equipment and commence construction until all permits have been issued. We request that the

compliance schedule be modified to require Pacific Fishermen to procure major equipment within two months of issuance of all permits necessary for construction, to begin construction within one month of procurement of all major equipment, and to complete construction within six months of procurement of all major equipment.

Pacific Fishermen has already successfully negotiated an additional six months to the normal compliance schedule of eighteen months due to difficult economic times, the war, and the fact that the in-house engineer, who is designing the system, is convinced the design will take nine months. The Department has already promised Pacific Fishermen a two week turn around for review of the Engineering Report and past dealings with the King County Planning Department show a six to nine month timeframe for permit issuance. The requested schedule could add four plus months to an already lengthy process for this facility. To maintain a level playing field and minimize environmental consequences, the Department prefers to keep the final compliance schedule and utilize discretion for any further extensions.

6. **Ecology has added the word "daily" to the cleanup requirements contained in condition S6B (page 15). MARCO's permit omits the word "daily." Presumably, MARCO's provision is less restrictive than our permit, as MARCO only has to undergo cleanup as part of the repair or production activities, to the extent maximally feasible, which may not be every day. Pacific Fishermen requests the word "daily" be eliminated from Condition S6. B.**

   As the Environmental Manager for Pacific Fishermen mentioned at the April 9, 2003, meeting that it was already standard practice to cleanup daily following the day's activities, the permit does not seem more restrictive than Pacific Fishermen's current practices.

7. **Pages 20-21, Condition S7, S8 and S9.**
   We (Pacific Fishermen) are not aware of any other shipyard that is required to have a Solid Waste Control Plan, a Spill Plan, and a Stormwater Pollution Prevention Plan. For example, MARCO's permit contains similar conditions to S7.A and S7.B, but does not require MARCO to have a Solid Waste Control Plan. Further, MARCO's permit omits the SWPPP requirements in their entirety. We believe that the SWPPP requirements are a holdover from when Pacific Fishermen was covered by a baseline general permit (before issuance of its individual NPDES permit.)

   Pacific Fishermen requests that these conditions be deleted and replaced by a condition requiring Pacific Fishermen to develop a Best Management Practices Plan that addresses BMP's for spill control, solid waste control, and stormwater pollution prevention. If the Department is unwilling to combine these conditions and allow Pacific Fishermen to submit one plan, then we request that the language in Condition S9.A.1 be deleted. Pacific Fishermen has already developed a SWPPP and retains it on-site.

Finally, Pacific Fishermen requests that the deadline for the SWPPP and the Spill Plan be changed to "within six months of the Department's approval of the Engineering Report." This will allow the plans to reflect whatever capital improvements and other operational changes will be implemented as part of the final stormwater treatment system approved by the Department. If the Department is unwilling to incorporate such language, then we request that the deadlines for submittal of an updated SWPPP and an updated Spill Plan be submitted by October 1, 2004, as Pacific Fishermen would like to retain the option of combining the plans into one document.

The Department has reviewed Pacific Fishermen's current Pollution Prevention Plan, Spill Control Plan, and Best Management Practices. The request to submit the updated plans required under this permit following the Department's approval of the Engineered Design for the new stormwater treatment facility is granted. The permit will be changed to reflect the new date of October 1, 2004, for the Pollution Prevention, Spill and Solid Waste Plans. In addition, the plans may be submitted separately or combined, at the discretion of the facility as long as all of the required information is included.

8. **Fact Sheet.**
On page 11 of the Fact Sheet in the subparagraph right above "Oil and Grease," the date should be changed from November 1, 2004 to July 2, 2005 to be consistent with the terms of the permit.

The last two subparagraphs relating to sediment sampling before "GROUND WATER QUALITY LIMITATIONS" on page 13 should be deleted.

Page 11 of the Fact Sheet has been amended to correct the date.
The first of the two paragraphs mentioned on page 13 will stand; the second paragraph will be amended.